

MILLING CUTTER WITH TANGENTIALLY MOUNTED INSERTS**ABSTRACT OF THE DISCLOSURE**

A milling cutter with tangentially mounted cutting inserts includes cutter pockets that are arranged at one end of the cutter body such that the screws for retaining the inserts generally radiate from the cutter's center. The cutter pockets are designed to secure a generally rectangular insert with eight or less cutting edges. The number of inserts and corresponding flutes vary as a function of the diameter of the cutter body. For example, four inserts with corresponding flutes are mounted on a 1.25" diameter cutter body, and three inserts with corresponding flutes are mounted on a 1.00" diameter cutter body. The increased number of flutes provide for increased metal removal rates and higher feed rates, as compared to an inserted ball nose mill or end mill. The cutter pockets are angled such that there is sufficient clearance under the insert cutting edges and present a "reverse lead" so the cutter assembly can produce a slightly undercut profile on the workpiece, or fixturing of almost five degrees so the radius generated on the workpiece can be nearly the same as that generated by a ball nose mill. The cutting inserts include facets for generating very good surface finishes on the workpiece.